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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Camille Dupuy

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EXAMINER

BADR, HAMID R

ART UNIT

PAPER NUMBER

1781

NOTIFICATION DATE

DELIVERY MODE

12/22/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/588,853	Applicant(s) DUPUY ET AL.	
	Examiner HAMID R. BADR	Art Unit 1781	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on RCE, 9/30/2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 28-44, 46 and 48-54 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 28-44, 46 and 48-54 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/30/2010 has been entered.

The rejection of claims 28-51; under 35 U.S.C. 112 second paragraph is withdrawn per applicants' amendment.

1. Claims 28-44, 46, and 48-54 are being considered on the merits.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 28-44, 46, and 48-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gelinas et al. (US 5,108,766; hereinafter R1) in view of Akatsuka et al. (US 4,093,748; hereinafter R2)
3. R1 discloses a bread flavorant comprising a dough obtained by lactic fermentation of flour and resulting flavorant can be used in dried form. These flavorants are added to bakery products at concentrations of about 2-4% (Abstract).

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4. R1 discloses that the fermented substrate can have flour comprising whole wheat, rye, barley, oat, buckwheat or combination of these flours. (col. 4, lines 12-20).

R1 also discloses that flour contains microorganisms, mainly lactic acid bacteria and yeast, that significantly contribute to flavor production in the fermentation medium (col. 4, lines 30-35). R1 further discloses that the optional addition of baker's yeast to the medium could enhance some interactions with the lactic acid bacteria present, especially with regard to the development of flavors (col. 6, lines 25-30). Therefore, according to R1, lactic bacteria and baker's yeast are result effective variables in the flavorant of R1.

5. R1 teaches of yeasts in the fermented dough with reference to *Saccharomyces cerevisiae*. (col. 6, lines 22-30).

6. R1 discloses the acid development and monitoring process for the fermented product. R1 discloses that the fermentation can be stopped at any time after sufficient amount of acids have been produced by the bacterial culture (col. 6, lines 59-68). Given that R1 teaches of the monitoring of the acid fermentation, it would be obvious to produce fermented products of various lactic acid content as presently claimed depending on the desired acid taste of the product.

7. R1 discloses that the flavorant can be freeze-dried, dried or frozen for longer storage periods. (Example 1). When the product is dried, per R1, the dry matter of the product will be in the range as presently claimed in claims 29-30 and 40.

8. While R1 clearly discloses the production of a dried flavor enhancing agent for bakery products and clearly discloses the interaction of lactic bacteria and yeast for the

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development of flavor, R1 is silent regarding the inclusion of yeast extract in the mixture.

9. R2 discloses a process wherein yeast extract is added to yeast flour and fermented. (Abstract).

10. R2 discloses that the yeast extract is added at about 0.01-0.3% on the basis of the total amount of wheat flour. (col. 2, lines 18-22)

11. R2 teaches of using various types of yeast extracts from various sources including brewer's yeast as presently claimed. (col. 1, lines 51-58)

12. R2 also discloses that the yeast extract added to the dough not only accelerates the maturing of the dough, but also it improves the volume, flavor, crust color and other qualities of bread. (col. 2, lines 3-7)

13. R2 discloses formulations for the doughs containing the yeast extract, no added salt and hydrolyzed egg white powder. The sponge and dough formulation contains less than 1.8% salt as presently claimed. (Col. 2, Example). The sodium content of the sponge and dough formulation is less than 0.5% as presently claimed.

14. It is noted that the flavor enhancing effect of yeast extracts in various foods is also known in the art. For instance, the flavor enhancing properties present in some yeast extracts can modify the flavor characteristics of foods and seasonings. These properties also reduce the need for sodium by changing the perceived flavor of sodium chloride in foods so that the salt content can be reduced without a significant loss of salty taste (Applicants are referred to US 5,286,630, Col. 1, lines 38-44). Therefore, when yeast extract is included in bakery formulations, it is obvious that due to the flavor

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enhancing effect of yeast extract, less salt will be needed regarding the taste effects of salt. It can be concluded that flavor enhancing effect of yeast extract resulting in reduction of added salt in a food system is inherent in yeast extract. Therefore, low salt and sodium requirements of claims 48-49 are obvious in light of the teachings of R2 regarding the incorporation of yeast extract in baked products.

15. Since the role of yeast extract as a flavoring agent and as a dough improving agent (accelerating the fermentation) is disclosed by R2, it is obvious to incorporate it into the sour dough or alternatively mix it with the dried fermented dough as disclosed by R1. Since the dry fermented product of R1 and the yeast extract of R2 are both result effective variables in determining the enhanced taste of baked products, the ratios of the dry matter of the dried sour dough to the dry matter of yeast extract are obviously optimized for creating the best organoleptic and functional results. The optimized ratios as presently claimed in claim 31 and 53 would be motivated and obvious to those of skill in the art.

16. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to make a dried sour dough, as disclosed by R1, either containing yeast extract, as disclosed by R2, or to make a dried sour dough and mix it with dry yeast extract and add the flavor enhancing agent to a dough to enhance the flavor of the baked products. One would do so to enhance the flavor of the baked product and reduce the amount of added sodium chloride due to flavor enhancing properties of yeast extract. Absent any evidence to contrary and based on the combined

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teachings of the cited references, there would be a reasonable expectation of success in making the dried flavor enhancing agent as presently claimed.

Response to Arguments

The remarks submitted in the amendment filed Aug. 27, 2010 are hereby re-considered per Applicants' request. These remarks have been thoroughly reviewed. They are not deemed persuasive for the following reasons.

1. Applicants argue that Gelinas (R1), while disclosing taste enhancing mixture for sourdough breads and bagels, does not suggest that other bakery products, e.g. baguettes, could be obtained with the acid flour.

a. R1 teaches of using the flavor enhancing mixture in baked products. Once this idea is disclosed, inclusion of the mixture in all baked products would be motivated and obvious in light of the teachings of R1.

2. Applicants argue that Gelinas does not suggest that it would be possible to reduce the amount of salt in breads.

a. The rejection of the claimed invention is based on two references. Gelinas teaches of the acid fermented doughs as flavor enhancers in baked products and Akatsuka (R2) teaches of incorporating yeast extract for flavor enhancing and other quality effects in bakery products as well. The flavor enhancing properties present in some yeast extracts can modify the flavor characteristics of foods and seasonings. These properties also reduce the need for sodium by changing the perceived flavor of sodium chloride in foods so that the salt content can be reduced without a significant

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loss of salty taste (Applicants are referred to US 5,286,630, Col. 1, lines 38-44).

Therefore, when yeast extract is included in bakery formulations, it is obvious that due to the flavor enhancing effect of yeast extract, less salt will be needed regarding the taste effects of salt. It can be concluded that flavor enhancing effect of yeast extract resulting in reduction of added salt in a food system is inherent in yeast extract.

Therefore, low salt and sodium requirements of claims 48-49 are obvious in light of the teachings of R2 regarding the incorporation of yeast extract in baked products.

Furthermore, in response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

On the other hand, the dried acid dough of R1 is used as a flavor enhancing agent in baked products. The dry yeast extract of R2 is also being used as a flavor enhancing agent for bakery products. It would be obvious to combine these two compositions for making a composition to be useful for the very same purpose of enhancing flavor in baked products.

3. Applicants argue that Gelinas (R1) neither mentions that the taste enhancing mixture must be dry.

a. R1 discloses that the flavorant can be freeze-dried, dried or frozen for longer storage periods. (Example 1).

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4. Applicants argue that Akatsuka (R2) discloses a mixture of yeast extract, hydrolyzed egg white and wheat flour for preparing bread.

a. Once again, the rejection is an obviousness type rejection. Akatsuka firstly discloses that yeast extract or the mixture of yeast extract and hydrolyzed egg white are used in baking. Secondly, Akatsuka, clearly mentions that yeast extract, inter alia, improves the flavor of the baked product. The hydrolyzed egg white is not necessary for the process per Akatsuka. Akatsuka clearly teaches of using yeast extract on its own or a combination of yeast extract and hydrolyzed egg white.

Thirdly, even if hydrolyzed egg white were a required component by R2, regarding the open language of claim 28 i.e. "comprising yeast extract and acid fermented flour" the yeast extract composition could comprise other ingredients including the hydrolyzed egg white. Therefore, R2 still meets the requirements of claim 28.

5. Applicants argue that the yeast extract of Akatsuka is directly added to the dough, not a flavor enhancing agent.

a. The rejection is a 103(a) rejection not a 102(b) rejection. Akatsuka teaches that yeast extract, added to bakery products, improves the flavor of baked products.

Therefore, Akatsuka is solving a problem with which the applicants were concerned.

6. Applicants argue that even if the composition of Akatsuka was considered a flavor enhancing agent, Akatsuka still does not disclose the dryness of the said agent.

a. Gelinas discloses that the flavor enhancing agent can be dried for storage purposes. Akatsuka, being a teaching reference, does not have to disclose the same concept.

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7. Applicants argue that Akatsuka discloses a salt content above the claimed 1.8%.

a. As disclosed above, yeast extract was known in the art to alleviate the reduction of sodium chloride in food systems due to its flavor enhancing properties. Therefore, the reduction of salt in food systems, which incorporate yeast extract, would have been obvious.

Secondly, Akatsuka discloses the use of 2% salt while the present claims require 1.8% salt. It is apparent, however, that the instantly claimed amount of 1.8% salt and that taught by Akatsuka are so close to each other that the fact pattern is similar to the one in In re Woodruff, 919 F.2d 1575, USPQ2d 1934 (Fed. Cir. 1990) or Titanium Metals Corp. of America v. Banner, 778 F.2d 775, 227 USPQ 773 (Fed.Cir. 1985) where despite a “slight” difference in the ranges the court held that such a difference did not “render the claims patentable” or, alternatively, that “a prima facie case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough so that one skilled in the art would have expected them to have the same properties”.

In light of the case law cited above and given that there is only a “slight” difference between the amount of 2% salt disclosed by Akatsuka and the amount disclosed in the present claims, it therefore would have been obvious to one of ordinary skill in the art that the amount of 1.8% salt disclosed in the present claims is but an obvious variant of the amounts disclosed in Akatsuka, and thereby one of ordinary skill in the art would have arrived at the claimed invention.

Conclusion

17. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HAMID R. BADR whose telephone number is (571)270-3455. The examiner can normally be reached on M-F, 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Keith Hendricks can be reached on (571) 272-1401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Hamid R. Badr
Examiner
Art Unit 1781

/Keith D. Hendricks/

Supervisory Patent Examiner, Art Unit 1781